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Attorney Docket Number	

ENCLOSURES *(Check all that apply)*

- ☐ Fee Transmittal Form
  - ☐ Fee Attached
- ☑ Amendment/Reply
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  - ☐ Affidavits/declaration(s)
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- ☐ Information Disclosure Statement
- ☐ Certified Copy of Priority Document(s)
- ☐ Reply to Missing Parts/ Incomplete Application
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- ☐ Drawing(s)
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Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	N/A		
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Date	2/23/05	Reg. No.	

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SLG-1 PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Patent Application of:

Stephen L. GORDON

Serial No.: 09/760,905

Filed: January 17, 2001

For: COMPUTER IMPLEMENTED
INTERACTIVE ERGONOMICS
RESOURCE SYSTEM

Group Art Unit: 2164

Examiner: Charles L. Rones

Confirmation No. 3536

REPLY BRIEF

Commissioner for Patents
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Sir:

This Appellant's Reply Brief on Appeal is timely filed under the provisions of 37 CFR 1.193, following an Examiner's Answer mailed on January 6, 2005. By this Reply Brief, the Appellant will define basic ergonomic terms that seem to be misinterpreted by the Examiner and provide clear arguments to refute the Examiner's rejections. A Certificate of Mailing for this Reply Brief is included in the Transmittal Form.

Summary

The Examiner's Answer, for the first time in written or oral communications with the Examiner, made clear that that the Examiner has misinterpreted or is unfamiliar with ergonomic terminology and specific definitions of what compromises a comprehensive ergonomics program as would be understood by one of ordinary skill in the art of ergonomics. Now, the Appellant can specifically distinguish the main features of the Application – (1) a comprehensive ergonomics program that can be established by using the defined software and expert system and (2) a system that is designed to be used independently by a layperson in the field of ergonomics to create an ergonomics program – from the prior art.

The Examiner's claim rejections under **35 USC § 112** are the meaning of the phrases related to (1) usable by laymen and (2) government regulations regarding software. The "usable by laymen" versus "easy to use" issue is clearly refuted based on definitions and explanations in the Specifications. With regard to government regulations, the Appellant believes that the Application is clear in that the developed ergonomics programs, and not the software to do so, are regulated by government standards.

The Examiner's claim rejections under **35 USC § 102** are based on the belief that a precedent patent Stern (U.S. Patent No. 6,592,223) teaches ergonomics programs as claimed in all independent and associated dependent claims. The Appellant provides, in great depth, evidence that Stern does not define a thorough single element of an

ergonomics program and no comprehensive ergonomics program containing elements as would be understood by one of ordinary skill in the art of ergonomics.

The Examiner's claim rejections under **35 USC § 103** are based on the belief that Stern provides for an ergonomics program that would be known to pertain to government regulations. The Appellant believes that Stern does not teach comprehensive ergonomics programs (he never mentions the phrase) and that the Examiner used hindsight reasoning to draw this conclusion.

Finally, the Examiner provides **Responses to Argument** that give some specific explanations as to why he believes Stern teaches an ergonomics program. The Appellant clearly defines the deficiencies in the Examiner's use and understanding of ergonomic terms in drawing his conclusions.

The Appellant respectfully requests that the Examiner's rejections be overturn and all claims allowed.

Detailed Reply to Examiner's Answer

The Examiner's claim rejections under **35 USC § 112** (Examiner's Answer page 3 to 4) are based on phrases in the claims "usable by laymen in the field of ergonomics" (claims 10 and 20) and "implemented by laymen in the field of ergonomics" (claim 16). The Examiner states this is the same as "easy to use" and "the intended use must result in a manipulative difference as compared to the prior art". The Examiner ignores the

statement in the Specification (20:8-11) " At this point it should be apparent that the strategy employed in the present invention allows those without skills and training in ergonomics to obtain and successfully employ the ergonomics programs suggested by the system ...". The Appellant believes that the "usable by a layperson" and "easy to use" are clearly different. The former refers to ergonomic skills of the user and the later refers to simplicity of use. There is a clear intent in the Application for the defined ergonomics programs and their expert knowledge to be used by laymen without the intervention of an ergonomics expert. Throughout the Specification (see for example Figure 2 and 20:8-12), the Application does not require information be reviewed or decisions made by ergonomic experts in determining what ergonomic actions (controls) are appropriate. Further the Specification (12:23-13:1) defines a layperson as "someone with either no prior training or no substantial prior training in ergonomics or OSHA standards". This justifies the use of phrases such as "implemented by laymen in the field of ergonomics" in the Claims. Compare this to the approach in the Examiner's often-referenced patent (Stern U.S. Patent No. 6,592,223) that specifically requires that software results be sent to ergonomic or eye care experts to gain their recommendations for action (5:39-42). It seems to the Appellant that Stern is a good example of when something maybe "easy to use", but not independently used by laymen.

Additionally, under **35 USC § 112**, the Examiner rejects Claims 11 and 17 stating "the government is not deemed to have regulations regarding software programs". The specific language of (for example) Claim 11 states "The computerized ergonomics resource system of claim 3 wherein said ergonomics programs conform to government

regulations". It seems clear to the Appellant that the meaning is that the ergonomics programs (created by the Appellant's software) conform to government regulations. These Claims make no reference to government regulations on software. Yes, the software allows someone, such as a layperson, to establish a complete ergonomics program, but the software is a means to create the ergonomics programs and is not being regulated.

The Appellant respectfully requests that all Examiner's Claim Rejections under 35 USC § 112 be overturned by the Appeals Board.

The Examiner's Rejections under **35 USC § 102** (Examiner's Answer page 3-10) are all based on comparison with Stern (U.S. Patent No. 6,592,223), specifically Figure 3; 5:31-43; and 6:40-47. Since **all** of the independent and associated dependent claims are based on the concept of providing a system that allows the user to create an **ergonomics program**, Stern is only a blocking patent if it describes a means to create such an ergonomics program.

The Appellant contends that Stern does not teach or infer a comprehensive ergonomics program as would be understood by one of ordinary skill in the art of ergonomics. For example, ergonomics programs must be applicable to all of a company's employees in many types of worksites (grocery workers, material handlers, nursing home workers, sewers, office workers, etc.) and not only appropriate for computer workers, as in Stern.

The Application was written to teach "one of ordinary skill in the art of ergonomics" that the software did indeed provide all of the key, valid elements of an ergonomics program. Even though the resulting system to establish the ergonomics program was designed to be useable by a layman, it was written to the skill level of someone with ordinary skills in ergonomics. In the Examiner's Answer (page 8, last paragraph), the Examiner uses the same meaning of skill in the art. Because basic ergonomic understanding was assumed, the terminology of an ergonomics program was used without defining in great depth each term. The Appellant believes that the Examiner's misunderstanding of these basic ergonomic terms led him to believe that Stern teaches an ergonomics program.

The following primer on the definition of the six elements of an ergonomics program comes from the language used in the OSHA Ergonomics Standard of November 2000 (rescinded March 2001) in 29 CFR Part 1910. This rule was in effect at the time of filing the Application. No significant changes in Federal rules or general ergonomic literature have changed the nature of the components of a complete ergonomics program. Interestingly, the OSHA 2004 Guideline (not a regulation) for ergonomic protection of grocery workers contains elements very similar to those in the rescinded regulations. One state government still has similar general ergonomics program standards in place.

1. Management Leadership

a. assign and communicate responsibilities to set up and manage ergonomics program

b. provide people with authority, resources and information to meet responsibilities

c. ensure policies encourage reporting of musculoskeletal diseases (MSDs) and hazards and employee participation in the ergonomics program

d. communicate periodically with employees about the ergonomics program

2. Employee Participation

a. have ways to report MSDs (signs and symptoms) and MSD hazards

b. receive prompt responses to reports of MSDs and MSD hazards

c. are provided with a summary of standard requirements and information on MSDs

d. have ways to be involved in development, implementation and evaluation of ergonomics program

3. MSD Management

a. provide prompt and effective MSD management at no cost to employee (e.g., access to healthcare professionals, work restrictions, evaluation and follow-up)

b. obtain written opinion from health care provider

c. provide health care provider with worker job description and ergonomic standard information

4. Job Hazard Analysis

a. conduct a job hazard analysis for each type of job

b. analysis must include all employees in that job or those with greatest exposure (talk with employees about tasks performed and observe/evaluate task performance)

c methods include standard hazard identification tools, expert analysis, or other appropriate means

d. If MSD hazard exists (for anyone performing that job), it is a "problem job"

5. Hazard Reduction and Control

a. control or reduce hazards below levels in standard identification tools

b. if not below standard levels, reduce to extent possible and reassess every 3 years

c. if below standard level, but still an MSD occurs assure controls still in place and still working and assess for new hazards

d. use feasible engineering, work practice or administrative controls

e. use personal protective equipment to supplement other controls

f. ask employees to recommend means to reduce MSD hazards

g. take control actions within 90 days of identifying problems

h. implement permanent controls in 2 years

i. track progress of controls

j. evaluate ergonomics program every 3 years or if not functioning well, correct problems

6. Training

a. Initial training and follow-up every 3 years

b. Training for each employee and each supervisor (or team leader) such as: requirements of standard; company's ergonomics program; signs and symptoms of MSDs; risk factors and hazards for MSDs; plan for addressing hazards; controls used to address MSD hazards; and employees role in evaluation of effectiveness of controls.

c. Training for each employee should include: topics in 6.b. above; how to set up and manage the ergonomics program; and how to identify and manage hazards.
d. Training must be provided to: leadership team within 45 days of determining a job meets the Action Trigger; each employee and supervisor within 90 days of determining that a job meets the Action Trigger; to each new employee prior to starting a job that meets the Action Trigger.

The Appellant's Application, in Figure 2 and throughout the specification, defines a complete and thorough understanding of ergonomics and ergonomic programs. It teaches how someone (even a layperson) could be instructed to gather data as requested by the computer software (this may be an iterative process with multiple rounds of successive data collection) and produce a well-defined, comprehensive ergonomics program (using the expert knowledge contained in the software) that may be applied to many types of worksites (such as, meatpackers, assembly workers, general lifters, office computer workers, etc.)

In comparison, the Examiner's referenced blocking patent by Stern does not teach a comprehensive ergonomics program (as would be understood by one of ordinary skill in the art of ergonomics) and relies on an expert to implement the hazard controls. Furthermore, Stern teaches a single type of worksite, the office computer worker, and assesses primarily visual acuity. There is passing mention of counting computer and mouse clicks that are valid ergonomic issues to be considered in an ergonomic evaluation. In the ergonomic standard (and in ergonomic texts) the primary risk factors

for MSDs are repetition, force, awkward postures, contact stress, and vibration. Visual acuity (the vast majority of focus by Stern) is not even mentioned as a primary risk factor. Stern minimally considers the risk of repetitive motion, but does not mention the other risks at all. The Appellant does agree that a thorough ergonomic assessment would include a simple visual acuity assessment by assuring that the computer worker would be placed between 20 and 30 inches from the screen. The other detailed visual acuity tests addressed by Stern are not assessed in standard ergonomic assessments and would not be common knowledge to ergonomics experts. **The Appellant does not believe that Stern teaches what a reasonable person of ordinary skill in the art of ergonomics would consider to be an ergonomics program. In fact Stern never mentions the phrase ergonomics program. Further, Stern mentions the word ergonomic only twice (Figure 3 and 5:42) in the context of sending the preliminary visual acuity findings to the corporate ergonomic staff or an eye care professional to decide what actions should be taken (in ergonomic language this would have been properly termed hazard controls).**

The Appellant respectfully requests that all Examiner's Claim Rejections under 35 USC § 102 be overturned by the Appeals Board.

Further, the Examiner rejects Claims 11 and 17 under **35 USC § 103** by stating that "it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide for the ergonomics program conforms to government regulations since it was known in the art that government regulations pertain to ergonomics... "

(Examiners' Answer page 10). The Appellant believes that based on the rationale presented in arguments against the Examiner's rejections under 35 USC § 102 above, Stern does not teach anything about ergonomic programs and shows a minimal understanding of ergonomics in general; therefore, the obvious argument of the Examiner is solely based on hindsight reasoning.

The Appellant respectfully requests that all Examiner's Claim Rejections under 35 USC § 103 be overturned by the Appeals Board.

The final Section of the Examiner's Answer concerns **Responses to Argument** by the Appellant (pages 11 to 14). Under 35 USC § 112, the Examiner believes clarification of the wording under Claim 10 for "laymen" is not clearly written, yet he seems to allow similar wording under Claims 16 and 20. The Appellant does not understand this issue. Likewise, the Examiner believes the wording regarding government regulations is still not clearly written. As discussed above in this Reply Brief under 35 USC § 112, the Appellant believes the language to be clear; however, the Appellant would be pleased to discuss comprise language with the Examiner.

Under 35 USC § 102, the Examiner explains specifically why he believes that Stern contains the six elements of an ergonomics program. It appears obvious to the Appellant that the Examiner is not familiar with the terminology of ergonomics in general and an ergonomics program in specific. The ergonomics program, defined above under 35 USC § 102 discussions, does not allow someone implementing such a program to pick and

chose isolated words or phrases and misinterpret these them as having ergonomics meaning that may satisfy an ergonomics program. As one example, the Examiner (Examiner's Answer page 11) says that "...(1) management leadership deemed to be recommendations of corporate ergonomic staff and or user's eye care professional". Compare that to the actual meaning of the term management leadership defined above. The ergonomic staff is not management. The user's eye care professional is not a member of the staff, yet alone its management. Nothing in Stern deals with the actual terminology and spirit of management leadership in an ergonomics program. All six of the elements of an ergonomics program limitation provided by the Examiner as being recited in Stern are similarly flawed. Also, please remember again that (1) Stern has absolutely no application to other worksites that must be covered by an ergonomics program and (2) Stern does not teach most of the components of ergonomic risks.

In discussing the number of program elements in the Application (Examiner's Answer page 12) he states "... Appellant's invention can contain one "1" element up to six "6" elements...". The Examiner believes that the Application and the Appellant's Appeal Brief justify that any number of elements can comprise an ergonomics program. In the Appeal Brief, the phrase "ordinarily having six elements" was not intended to imply that any single element could constitute an ergonomics program. No one of ordinary skill in the art of ergonomics would draw such a conclusion. The Application Specification (11:15-20) states: " While each of the OSHA standard elements are incorporated into the system of the present invention, the regulations may be modified. Nevertheless, these standard elements or straightforward modifications of the elements would still be utilized

in the system of the present invention. It is clear that this system has significant value absent the existence of regulations." The Appellant believes that the Application completely defines the six elements and the terms therein that should be met in spirit to conclude that something can be called an ergonomics program. The Application fully meets this criterion. Stern would not be considered by one of ordinary skill in the art of ergonomics to constitute a complete ergonomics program.

The Examiner further questions controls for fingers, hands, elbow that are not in the Appellant's Specification or Claims (Examiner's Answer page 13-14). This was in response to the Appellant's Appeal Brief that stated controls for other body parts were not in Stern. One of ordinary skill in the art of ergonomics would clearly understand the nature and general description of ergonomic hazards and controls (in the Specification) and conclude that all relevant body parts would be included.

The Examiner states: "Stern does disclose monitoring eyestrain which would involve eyes, shoulders, back and neck position and mouse clicks which would involve the hand, finger, elbow, and shoulders; See 6:1-39". Eyestrain is simply excessive use of the eyes or use of the eyes under conditions of poor visual acuity. To imply that eyestrain covers proper alignment of the upper extremities, back and neck is a gross misinterpretation of ergonomic and anatomic meaning. While counting mouse clicks is an ergonomic assessment related to excessive repetition, it has nothing to do with the issue of awkward, non-neutral positions of the fingers, hands, and arms. All of these points would be clearly understood by one of ordinary skill in the art of ergonomics.

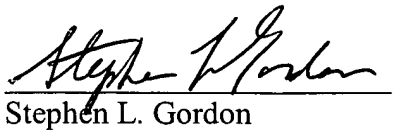
The Appellant believes that the Examiner's Response to Argument uses logic built on misinterpretation and misuse of ergonomic terms and the meaning of an ergonomics program as they would be interpreted by one of ordinary skill in the art of ergonomics.

Conclusions

The Examiner's rejections are based on the belief that Stern teaches the principles and elements of an ergonomics program. Stern does have some components of an ergonomics program. However, Stern does not teach even a single complete ergonomics program element. He fails in definition and spirit. His focus on vision with minimal attention to other ergonomic issues and gross avoidance of other ergonomic hazards indicates a lack of knowledge or intention to teach an ergonomics program. The entire Stern emphasis is on a single worksite, the office computer worker, with no consideration or possible application as teachings for other worksites. How could such teachings block claims for a plurality of worksites as in specifically stated in independent Claim 3 and the related dependent claims? Also Claims 14 and 23 require a plurality of ergonomics programs. Throughout the Specification and Claims, the Appellant considers that ergonomics programs should be appropriate for a variety of worksites, which point is totally absent in Stern.

The Appellant respectfully requests that the Appeals Board overturn the rejections of the Examiner and allow all claims.

Respectfully submitted,



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Dated: February 22, 2005

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